

CLAIMS

1. A dust collecting apparatus having a dust receiving unit equipped with a rotary brush and a dust collecting unit for collecting dusts received from the dust receiving unit, characterized in that

the dust collecting unit includes a primary chamber for storing the dusts splashed up by the rotating action of the rotary brush and a secondary chamber connecting via a connection passage with the primary chamber and

a conveying means is provided for intermittently conveying the dusts in the primary chamber to the secondary chamber.

2. A dust collecting apparatus according to claim 1, wherein the rotary brush is arranged to generate a air flow for conveying the dusts received in the dust receiving unit to the dust collecting unit.

3. A dust collecting apparatus according to claim 1 or 2, wherein

the rotary brush is surrounded by an intake passage which communicates with the primary chamber and

a leak inhibiting wall is provided for inhibiting the air flow generated by the rotating action of the rotary brush from leaking out from the intake passage in a direction of rotation of the rotary brush.

4. A dust collecting apparatus according to claim 3, wherein

the intake passage is arranged substantially equal in width to the rotary brush.

5. A dust collecting apparatus according to claim 3 or 4, further characterized by

a subsidiary air flow generating means for generating a subsidiary air flow to assist the air flow generated by the rotating action of the rotary brush for conveying the dusts received in the dust receiving unit to the dust collecting unit.

6. A dust collecting apparatus according to any of claims 1 to 5, wherein

the connection passage is arranged flush with or lower than the bottom of the primary chamber.

7. A dust collecting apparatus according to any of claims 1 to 6, wherein

the dust receiving unit and the dust collecting unit are mounted to a vehicle which is supported by running wheels and the bottom of the primary chamber is located higher than the center of rotation of the rotary brush.

8. A dust collecting apparatus according to any of claims 3 to 7, wherein

the bottom of the primary chamber is arranged lower at the

connection passage side than at its dust collection opening connecting with the intake passage.

9. A dust collecting apparatus according to any of claims 3 to 8, wherein

the bottom of the primary chamber has a group of ribs provided thereon for guiding the dusts received by the primary chamber to the connection passage while inhibiting a backward flow to the intake passage.

10. A dust collecting apparatus according to any of claims 1 to 9, wherein

the secondary chamber is arranged greater than the primary chamber.

11. A dust collecting apparatus according to any of claims 1 to 10, wherein

the secondary chamber is arranged lower at the connection passage side than the other side opposite to the connection passage as having a slope thereof inclined from the connection passage side to the other side.

12. A dust collecting apparatus according to any of claims 3 to 11, wherein

the connection passage is arranged open to the side opposite

to the dust collection opening of the primary chamber which communicates with the intake passage and

the secondary chamber is located higher at the side opposite to the connection passage than the primary chamber.

13. A dust collecting apparatus according to claim 11 or 12, wherein

the secondary chamber has a vent opening therein provided at the side opposite to the connection passage and

the conveying means is an electric fan disposed at the outer side of the vent opening.

14. A dust collecting apparatus according to claim 13, further characterized by

a means for driving the electric fan intermittently.

15. A dust collecting apparatus according to any of claims 1 to 14, further characterized by

a check valve for inhibiting the dusts from returning back from the secondary chamber to the primary chamber.

16. A dust collecting apparatus according to any of claims 1 to 15, wherein

the rotary brush is rotatably linked to an electric motor which is located above the rotary brush.

17. A dust collecting apparatus according to any of claims 1 to 16, further characterized by
a housing detachably mounted and arranged to define the secondary chamber.

18. A dust collecting apparatus according to claim 17, further characterized by
an operating member arranged movable upwardly and downwardly and having retaining portions thereof for retaining the housing.